

## Electronic Supplementary Information (ESI)

### Kinetics of crystal growth of nanogoethite in aqueous solutions containing nitrate and sulfate anions <sup>+</sup>

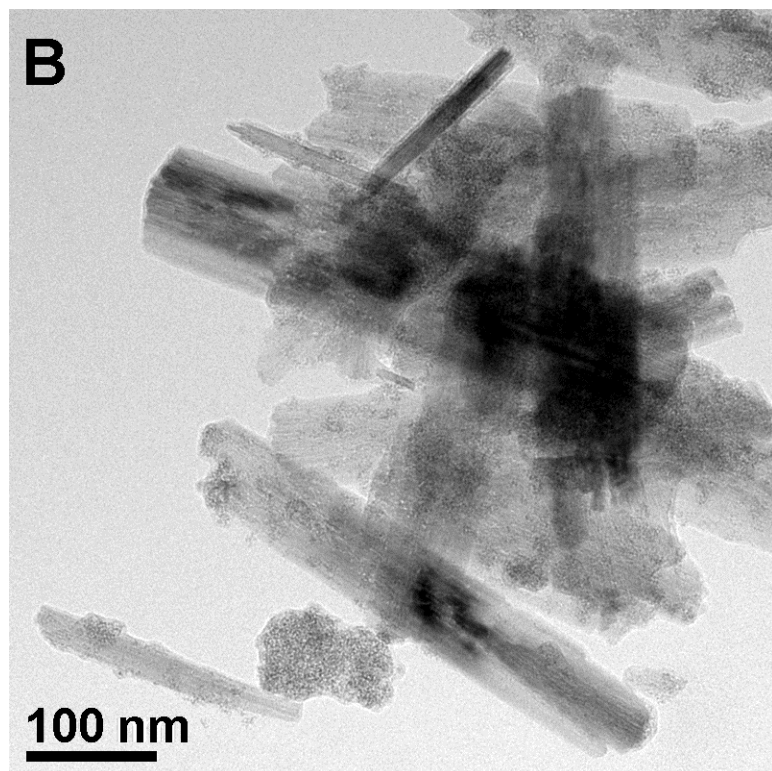
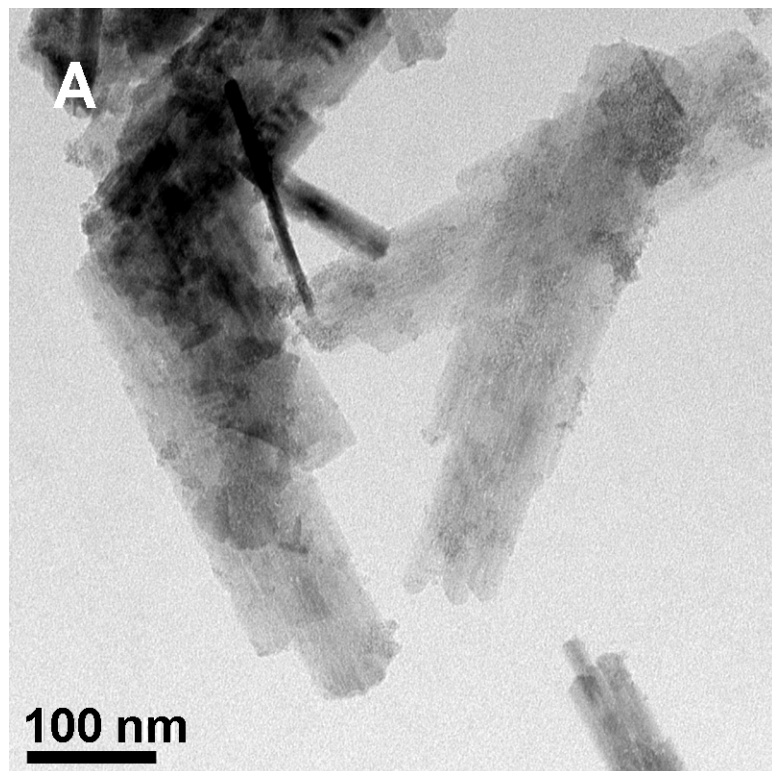
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#### 1. Fitted kinetic constants

Table S1. Fitted kinetic constants

T (°C)	OA in nitrate system		OA in sulfate system	
	$k$ (h <sup>-1</sup> )	$m$	$k$ (h <sup>-1</sup> )	$m$
25	0.156	15.3	0.059	19.2
50	0.372	20.0	0.271	24.5
60	0.490	21.2	0.492	24.8
70	0.488	21.7	0.592	25.4

## 2. TEM images showing aggregation of goethite nanorods



**Fig. S1** TEM images showing goethite nanorods are aggregated in samples aged at 70 °C for 4 h in the nitrate system (A), and aged at 60 °C for 5 h in the sulfate system (B). Average particle size by XRD analyses is 33 nm for (A) and 36 nm for (B).